

AN ABSTRACT OF THE THESIS OF

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Title: An Assessment of Attitudes Toward People With AIDS,
Knowledge of AIDS, and Associated Variables in Rural Oregon.

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The purpose of this study was to assess attitudes toward people with AIDS (PWA's) and related knowledge and attitudes in two rural communities in Western Oregon. A random sample of the general population was selected from two communities in Benton County. One hundred and sixty three individuals were contacted, and 111 interviews were completed, giving a participation rate of 68%. Forty seven males and 64 females of all ages between 18 and 80 were interviewed between April 12th and May 9th 1992. Pearson's Product Moment Correlation Coefficient and Spearman's Rank Correlation Coefficients were used to identify relationships between the variables. The results indicated: A positive association between attitudes toward PWA's and attitudes toward homosexuals ($r = .65$; $P \leq .0001$), indicating that people with a negative attitude toward PWA's also tended to have a negative attitude toward homosexuals.

Furthermore, those people who were more knowledgeable about the transmission of the AIDS virus had more positive attitudes toward PWA's ($r = .42$; $P < .001$). Overall, the results indicated that the communities were sympathetic to PWA's and did not support legislation aimed at restricting the behavior of PWA's.

The use of the ONEWAY ANALYSIS OF VARIANCE indicated that religious individuals had a more negative attitude toward PWA's than non-religious individuals ($F = 4.308$; $P < .04$; $df\ 1/109$). This group were also more negative in their attitudes toward homosexuals than those without a religious belief ($F = 21.163$; $P < .00001$; $df\ 1/109$). Further analysis using a Oneway Analysis of variance indicated that there were no attitudinal or knowledge differences between males and females or people of different age groups.

AN ASSESSMENT OF ATTITUDES TOWARD PEOPLE WITH AIDS,
KNOWLEDGE OF AIDS, AND ASSOCIATED VARIABLES IN RURAL OREGON.

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AN ASSESSMENT OF ATTITUDES TOWARD PEOPLE WITH AIDS,
KNOWLEDGE OF AIDS, AND ASSOCIATED VARIABLES IN RURAL OREGON

CHAPTER 1

Introduction

As the United States enters the second decade of the AIDS epidemic, attitudes and beliefs concerning HIV-disease will play an increasingly important role in shaping societal responses to AIDS-related issues. Americans will be called upon to bear the epidemic's considerable costs in time and money, and increasingly, to respond to PWA's in their schools, neighborhoods, work-places, and families. Consequently, the ability of people to understand public reactions will be critically important. Americans will have an increasing need to know more about the epidemic, in promoting enlightened public policy, and fostering compassion for persons infected with HIV.

Public attitudes about AIDS are shaped by the complex characteristics and circumstances that surround the epidemic. AIDS is a transmissible and, to date, lethal disease, and personal reactions to it are inevitably influenced by concerns about one's own well-being. AIDS is also a highly stigmatized illness. Many individuals perceived to be infected with HIV have been fired from their jobs, evicted

from their homes, and have been deserted by their friends and families (Herek, 1990). This stigma results from the physical characteristics of AIDS, and more importantly, its psychosocial characteristics (i.e. its prevalence among such already stigmatized groups as gay men, African Americans, and intravenous (IV) drug users).

In recent years many studies have investigated the factors that exert an influence on reactions to AIDS (Bouton et al, 1989; Herek and Glunt, 1991). Among those identified are: Attitudes toward homosexuals; knowledge of AIDS; and various demographic variables including religious affiliation.

Statement of Purpose

The purpose of this study was to investigate attitudes toward PWA's and their relationship to: attitudes toward homosexuals, knowledge of AIDS, and various demographic factors, including religious affiliation. In contrast to many previous studies, the present investigation focused on two rural communities, Kings Valley and Philomath, situated in Benton county, Western Oregon.

The selection of a rural population to study was particularly important and timely, because of the previous low incidence of the disease in rural areas. Incidence in these communities

is increasing and is expected to rise significantly in the future (National Commission on AIDS, 1989). Furthermore, some of the characteristics of rural populations would indicate a lower level of tolerance toward PWA's compared with urban populations (Rounds, 1988).

Significance of Problem

Through August 1992, a total of 1,460 AIDS cases had been reported in the State of Oregon, a prevalence rate of 10 cases per 100,000 population. The rate is low compared with California and New York, but high when compared with states such as Wyoming and Montana (figures 1 and 2). Through June 1992, 13 cases of AIDS had been reported in Benton County, a prevalence of 17.8 per 100,000. A breakdown according to method of transmission in Oregon indicated that 76% of cases were bi/homosexual men, five percent intravenous (IV) drug users, 10% were both bi/homosexual men and IV drug users, two percent hemophiliacs, two percent through heterosexual contact, two percent through blood transfusions, and two percent through other/unspecified causes. This compares with national figures indicating the major spread of AIDS, through bi/homosexual contact (58%), IV drug use (23%). Therefore the rate of transmission in Oregon was reported to be lower amongst IV drug users and higher amongst the bi/homosexual male community. The estimated number of people

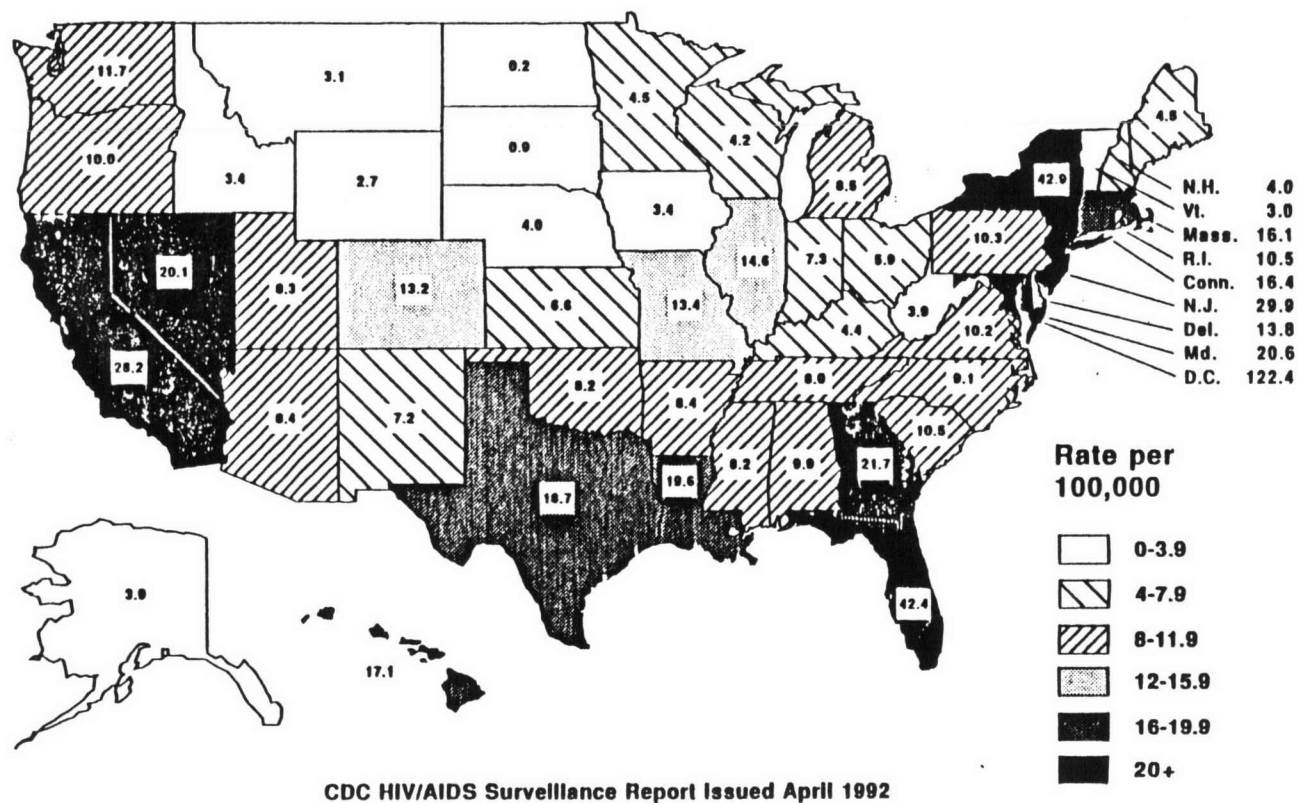


Figure 1: AIDS Annual Incidence Rates per 100,000 Population for Cases Reported 4/91 - 3/92, United States.

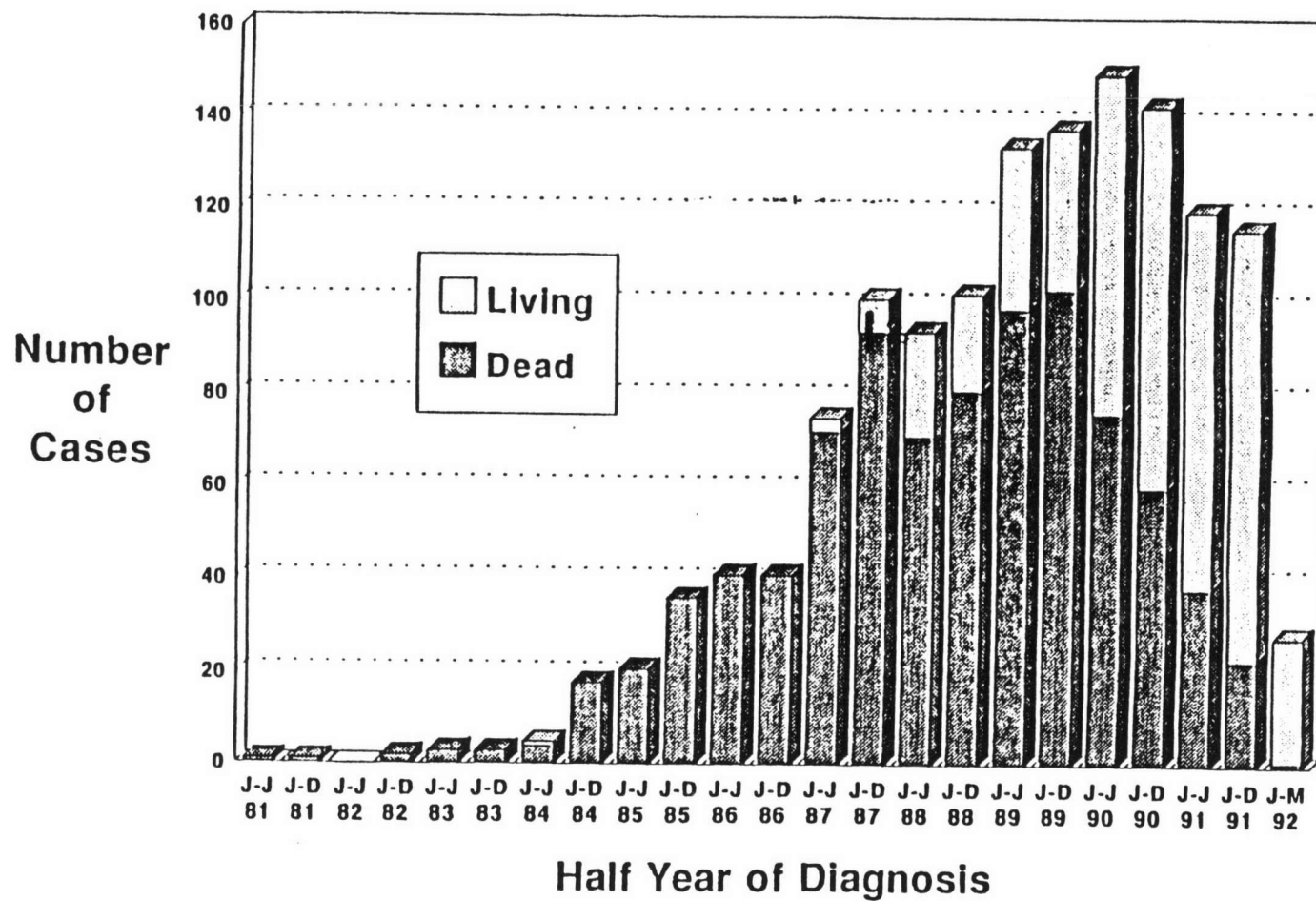


Figure 2: AIDS Cases in Oregon, 1981 - March 1992.

in Oregon who were HIV positive was eight to ten thousand (Oregon Health Sciences Division, August, 1992).

The National Commission on AIDS (1990) reported that the number of cases diagnosed in rural areas revealed a significant rate of increase. The incidence of AIDS increased in rural areas by 37% compared to a five percent increase in urban areas over the period 1988/89. This study did not include the increasing numbers of individuals who had been diagnosed in urban areas and subsequently returned home to rural areas to be with their families.

Certain attitudinal attributes have been identified as being more characteristic of rural populations. According to Rounds (1988), rural residents are more likely to consider religion and the role of the church as being very important, expect greater conformity to social norms, and be less tolerant of diversity.

Some of these characteristics have been found to be associated with negative attitudes toward PWA's and individuals belonging to high risk groups such as homosexuals and IV drug users (Herek and Glunt, 1988; O'Donnell, Pleck, Snarey, and Rose, 1987). This finding is also supported by other studies which have examined attitudes of health professionals in rural areas (D'Augelli, 1989).

Justification of Study

Since the early 1980's many surveys in the United States have assessed knowledge about AIDS, attitudes toward AIDS and PWA's, and high-risk behaviors. Most of these studies have focused on university students, health care professionals, the general urban population, or the general population in mixed urban and rural areas. Some studies reported rural inhabitants to have more negative attitudes toward PWA's and high-risk groups than urban inhabitants (Temoshok, Sweet, and Zich, 1987; Herek and Glunt, 1988). However, there have been no studies which focus entirely on attitudes and knowledge of rural communities.

This study focused on two rural communities in Western Oregon. The investigation was timely since it coincided with the dramatic increase in the number of people with AIDS in rural areas (National Commission on AIDS, 1990). This serious increase has placed a growing burden on these communities who have tried to deal effectively with the AIDS problem.

Research Questions

The following research questions were addressed by this study:

1. What are the attitudes of people in rural Oregon toward PWA's?
2. What is the level of knowledge in rural Oregon about routes of transmission of the AIDS virus?
3. How do attitudes in rural Oregon toward homosexuals relate to attitudes toward PWA's?
4. How do demographic factors in rural Oregon relate to attitudes toward PWA's?
5. What are the variables associated with a negative attitude toward PWA's?

Hypotheses

The following hypotheses were established for this study:

- H1. There will be an association between attitudes toward PWA's and attitudes toward homosexuals.
- H0. There will be no association between attitudes toward PWA's and attitudes toward homosexuals.
- H2. There will be an association between knowledge about AIDS and attitudes toward PWA's.

H0. There will be no association between knowledge about AIDS and attitudes toward PWA's.

H3. There will be an association between levels of religiosity and attitudes toward PWA's.

H0. There will be no association between levels of religiosity and attitudes toward PWA's.

H4. There will be an association between knowledge about AIDS and educational level.

H0. There will be no association between knowledge about AIDS and educational level.

H5. There will be an association between age and attitudes toward PWA's.

H0. There will be no association between age and attitudes toward PWA's.

H6. Males and females will differ in their attitudes toward PWA's.

H0. Males and females will not differ in their attitudes toward PWA's.

H7. Males and females will differ in their attitudes toward homosexuals.

- H0. Males and females will not differ in their attitudes toward homosexuals.
- H8. People with a religious belief will have a more negative attitude toward PWA's than people without a religious belief.
- H0. People with a religious belief will not have a more negative attitude toward PWA's than people without a religious belief.
- H9. People with a religious belief will have a more negative attitude toward homosexuals than people without a religious belief.
- H0. People with a religious belief will not have a more negative attitude toward homosexuals than people without a religious belief.

Scope and Limitations

The scope of this study was determined by the information obtained from a random sample taken from two adjacent communities in rural Oregon. The sample consisted of 111 males and females over the age of 18. This study was designed to examine: Attitudes toward homosexuals, knowledge of AIDS, religious belief, religiosity, sex, age, and their effects on attitudes toward PWA's.

The following limitations apply to this study:

1. A telephone interviewing technique restricted data collection to those individuals with convenient access to a telephone.
2. The sample was taken from the telephone book and excluded those living in the area who were unregistered.
3. Individuals with certain disabilities (such as hearing loss) were less likely to participate in a telephone interview survey.
4. A larger sample size would have been desirable to include more analysis of attitudes based on religious affiliation.

Assumptions

The following assumptions related to this study:

1. All telephone participants answered the questionnaire willingly and honestly.

2. All telephone participants clearly understood the questions and the manner in which they should respond.
3. All telephone participants answered the questionnaire based on their current knowledge and attitudes.

Definition of Terms

AIDS - Acquired Immune Deficiency Syndrome

Attitudes - Learned, relatively enduring predispositions to respond to certain things in consistently favorable or unfavorable ways.

Belief - The state of believing, conviction, or acceptance that certain things are real.

HIV - Human Immunodeficiency Virus.

Homophobia - The irrational fear or hatred of homosexuals.

Person With AIDS (PWA) - A person who has been diagnosed with AIDS.

Religiosity - A belief in a religious doctrine that strongly influences the manner in which individuals conduct their lives.

Rural - Areas with 2,500 or fewer residents (Census Bureau, 1990).

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

This review of related literature provides discussion on attitudes, attitude measurement, and attitudes toward PWA's with associated variables including: attitudes toward homosexuals, knowledge of AIDS, religiosity, and other related factors. The literature is grouped according to the population sampled; for example, college students, health care personnel, and the general population.

Attitudes and Their Measurement

Briefly defined, attitudes are affinities for and aversions to specific people, groups, objects, ideas, or situations. They are our likes and dislikes, our feelings for and against (Bem 1968). This definition stresses the evaluative side of attitudes. However, attitudes are more than this. Fishbein and Ajzen (1975) define attitudes as learned, relatively enduring predispositions to respond to certain things in consistently favorable or unfavorable ways. Besides the evaluative aspect of attitudes, this definition points to three other attributes. First, an attitude is learned, not

innate. Second, it persists for a relatively long time, and third, it motivates us to act, helping to shape and direct our behavior. Social scientists have for many years been interested in measuring attitudes. The most common method is to administer a questionnaire that asks people to indicate both the direction and strength of their opinion about an attitude object.

The Likert approach to developing questions and summary scales is used with great frequency in social surveys. It relies on an ordinal response scale in which the respondent indicates the level of his or her agreement with an attitudinal statement. This reflects a subjective rather than factual response of the individual to an issue. Generally five categories : strongly agree, agree, disagree, strongly disagree, and no opinion are used. Scores can be assigned to each of the responses to reflect the strength and direction of the attitude expressed in a particular statement (1 to 5 for example, with 5 indicating a positive attitude and 1, a negative attitude) toward the issue. The scores associated with the answers that the respondents provide to each question are then added up to produce a total summary score of the strength and direction of a respondents attitude on the subject (with a high score meaning a more positive attitude for example).

Attitudes toward AIDS or PWA's have most often been assessed using the Likert technique and various scales have been designed using this technique (Larsen, 1990). Other studies have assessed attitudes using a less direct method, whereby subjects are given a hypothetical situation in which an ill person is assigned a different illness, AIDS, cancer, or genital herpes, for example. The subject is asked to indicate how comfortable he/she would feel about sharing a hospital room with the ill person, or how responsible the ill person was for their diagnosis. A good measure of the person's attitudes is gained from this technique (Triplet and Sugarman, 1987; Sheehan, Lennon, and McDevitt, 1989).

Attitudes Toward PWA's

Attitudes about AIDS are shaped by the complex characteristics and circumstances that surround the epidemic. AIDS is a transmissible and, to date, lethal disease, and personal reactions to it are inevitably influenced by concerns about one's own well-being. Attitudes toward PWA's are particularly important given the impact of the disease on society, both economically and socially, the public policy decisions that have to be made, and the impact of societal attitudes on the quality of life of PWA's.

Many researchers have found evidence of negative attitudes

toward PWA's (Blendon and Donelan, 1988; Dupras, Levy, Samson, and Tenier, 1989). There is much evidence to suggest that the public has responded to the disease with a plague mentality. Herek and Glunt (1988) defined this reaction as 'AIDS-related stigma'. There has been much speculation as to the root of this negative reaction, and some researchers have suggested that it may reflect a disapproval of promiscuous sexuality and intravenous (IV) drug abuse. Or, on a more fundamental level; it may reflect a deep seated prejudice against homosexuality for which AIDS has provided a convenient outlet (Herek and Glunt, 1988).

Several variables have been associated with attitudes toward PWA's. For example, men have been found to have more negative attitudes toward PWA's than women (Sheehan, Ambrosio, McDevitt and Lennon, 1990). Older people have been shown to have more negative attitudes than younger people (Singer, Rogers, and Glassman, 1991). People with negative attitudes toward homosexuals are more likely to also have negative attitudes toward PWA's (Ambrosio and Sheehan, 1991), as are those with less knowledge of the disease (Mondragon, Kirkman-Liff, and Schneller, 1991), and those living in areas of low AIDS prevalence (Temoshok, Sweet, and Zich, 1987). Finally, political and religious conservatives have been found to be more fearful of AIDS than liberals (Bouton et al, 1989). Several researchers have described psychological components

of AIDS-related attitudes. Pryor, Reeder, and Vinacco, (1989) conducted a series of studies examining the instrumental and symbolic functions of attitudes. They found that negative attitudes toward PWA's are based on both symbolic and instrumental functions. According to the authors, attitudes serving an instrumental function are utilitarian in nature and revolve around the concern for potential consequences if one interacts with an AIDS infected person. Attitudes with symbolic functions are more concerned with emotional responses, abstract values, and what AIDS symbolizes.

The first U.S. poll on AIDS was conducted in 1983 (Singer, Rogers, and Corcoran, 1987), since then, surveys on AIDS and related issues have become increasingly frequent. Relevant investigations will be discussed according to the population group studied: college students, health care professionals, and the general population, both nationally and in Oregon.

Studies Conducted on College Populations

College students have become a major target population for dissemination of AIDS information. Studies have found students to be relatively well informed (Gray and Saracino, 1991). Although sex differences have been noted the results have been inconclusive. Goodwin and Roscoe (1988) found that female college students scored higher than males on knowledge

items. In contrast, Bouton et al (1989), and Connor, Richman, Wallace, and Tilquin (1990) found males to be more knowledgeable than females about AIDS.

The relationship between knowledge of AIDS and attitudes toward PWA's is not consistent. For example, Gray and Saracino (1991) found no meaningful relationship. A study by Witt (1989) did find an association, and in a study by Bouton et al (1989), a relationship was only present amongst male subjects. Research by Morton and McManus (1986) using British students found that attitudes toward AIDS and its treatment did not correlate with knowledge about the condition but instead were related to attitudes concerning homosexuals.

To assess responses to PWA's, Triplet and Sugarman (1987) asked students to read hypothetical case descriptions of victims of illness who varied in their sexual preference and diagnosis. They found that there was a general tendency to hold prejudicial attitudes toward homosexuals. Homosexuals were perceived as being more personally responsible for their illness and less interactionally desirable than heterosexual victims, regardless of their diagnosis. They also found that individuals would be less willing to have themselves or a close family member share a hospital room with a PWA than with a patient with Legionnaire's Disease, genital herpes, or hepatitis. A similar study by Sheehan, Lennon and McDevitt

(1989) found that PWA's were responded to more negatively than individuals with cancer or hepatitis. Respondents perceived a greater risk to their own health from interacting with a PWA than from a person with hepatitis or cancer. Sheehan, Ambrosio, McDevitt, and Lennon (1990) conducted a study to compare attitudes and knowledge related to AIDS between 1986 and 1988. The 1988 group were more accurate in their knowledge of how AIDS is transmitted, and attitudes towards homosexuals were slightly more negative for the later group, However, attitudes towards PWA's did not change.

Bouton et al, (1989) found negative attitudes toward PWA's to be associated with a negative attitude toward homosexuals, which in turn was associated with frequency of church attendance and religious affiliation. This finding is supported by Herek (1984), and from results from a cross cultural study on attitudes toward homosexuality which found that Catholic students held more homophobic attitudes than those without a religious preference (Jensen, Gambles and Olsen, 1988). An investigation by McDevitt, Sheehan, Lennon and Ambrosio (1989) found a correlation between fear of AIDS and homophobia. Furthermore, it was noted that the association between homophobia and AIDS phobia persisted when beliefs about the desirability of restricting individuals with AIDS and homosexuals from certain professions were taken into account. These findings are consistent with Herek and

Glunt's (1988) suggestion that attitudes toward PWA's are formed, in part, on the basis of pre-existing attitudes toward homosexuals, whose high rate of contracting AIDS has been well publicized.

Larsen, Ommundsen, and Elder (1990) found that students from countries with more liberal sexual attitudes (Denmark and Norway) were more sympathetic toward PWA's than those in the United States. When investigating differences between males and females it was noted that they existed with each of the national samples, with females showing more positive attitudes.

Studies Conducted on Health Care Professionals

Since negative reactions to PWA's can lead to avoidance, unwillingness to care for, and even mistreatment on the part of care-givers, it is extremely important that factors related to attitudes towards PWA's in health care professionals are examined.

D'Augelli (1989) in a study of nurses found that although most understood the basics of AIDS, many expressed personal worry about getting AIDS, there was a high degree of fear related to casual contact, and there was a strong

relationship between fear of AIDS and homophobia. Scherer, Wu, and Haughey (1991) in a study on nurses found that many of the nurses held negative attitudes toward homosexuals, and that some (25%) had become more negative about homosexuality since the AIDS crisis began. They found that less than 60% agreed that homosexuality is an alternate lifestyle that should not be condemned, and only 55% reported that they would feel comfortable establishing a therapeutic relationship with a homosexual patient. These findings are consistent with data reported by Douglas, Kalman, and Kalman (1985); O'Donnell, O'Donnell, Pleck, Snarey, and Rose, (1987); Royse and Birge (1987), and Barrick (1988). Barrick (1988) found a direct correlation between attitudes toward gay men and lesbians and an unwillingness to care for PWA's.

In a study of rural nurses, Barthallow Koch, Bray Preston, Wilson Young, and Wang (1991) found that 20% were not willing to care for PWA's, and that nurses who were older, more educated, unmarried and not religious held less negative attitudes toward PWA's. Many of the nurses were found to be homophobic and these attitudes were related to educational level and religious beliefs.

A study by Kelly, St Lawrence, Smith, Hood, and Cook (1987) with physicians found that those who had negative attitudes toward PWA's reported less willingness to interact with a PWA

than with a Leukemia patient, even in highly casual contexts such as conversation. PWA's were viewed as being more responsible and deserving of illness, and less deserving of sympathy than Leukemia patients.

Studies Conducted on the General Population

Studies in the United States on the general adult population have been conducted on a national scale, as well as in selected states i.e. Vermont and North Dakota. A national study administered as a supplement to the National Health Interview Survey (NHIS) found that although most people were aware of the sexual, parental, and perinatal transmission of HIV, there were many misperceptions about transmission by saliva and uncertainty about insect infection (Hardy, 1990; McCaig, Hardy, and Winn, 1991).

Other studies have found the public to have a high level of knowledge about the ways the virus can be transmitted but many misconceptions about ways it cannot, as well as the effectiveness of various preventative methods (Kappel, Vogt, Bozicevic, and Kutzko, 1989; Timmerman, McDonough, and Harmeson, 1991).

Although general statements can be made in the U.S. in terms of knowledge about AIDS, there are large differences between

different groups. Analysis of the NHIS data by McCaig, Hardy, and Winn (1991) and other studies have identified: older persons, African-Americans, and those with fewer than 12 years of education as being less knowledgeable about AIDS (Hardy and Dawson, 1989; DiClemente, Boyer, and Morales, 1988; Kappel, Vogt, Brozicevic, and Kutzko, 1989; Keeter and Bradford, 1988; Stipp and Kerr, 1989; and Aruffo, Coverdale, and Vallbona, 1991). Aruffo, Coverdale, and Vallbona, (1991) suggested that less schooling may relate to a reduced ability to apply information. Alternatively, a higher education may be linked to some factor such as higher income which, in turn, relates to AIDS knowledge.

Further analysis of the data from the NHIS indicates that 49% of the population answered correctly that AIDS could not be transmitted by eating in a restaurant where the cook has AIDS, 47% answered correctly that AIDS could not be transmitted by sharing plates, forks or glasses with someone who has AIDS, and 45% answered correctly that AIDS could not be transmitted by being coughed or sneezed on by someone with AIDS (Hardy, 1990). A study in Vermont by Kappel, Vogt, Broziceric, and Kutzo (1989) indicated that although 89% of respondents believed that one cannot catch AIDS from a co-worker, 15% of those questioned felt that employers should be allowed to fire workers who have the virus. Nearly half (47%) felt that co-workers should be allowed to refuse to work near

someone with the virus. Eighty one percent felt that physicians did not have the right to refuse to treat a PWA, while 77% felt that nurses did not have this right.

Studies investigating attitudes toward PWA's have elicited some interesting results. For example, Allard (1989) found that support for coercive measures to control the AIDS epidemic was widespread in the general population but was stronger amongst the less educated, married people, and those with a high level of one of the following beliefs about AIDS: perceived severity, susceptibility, curability, or barriers to treatment. Blendon and Donelan (1988) reviewed 53 national and international opinion surveys, conducted between 1983 and 1988. Their review included a study reported in the LA Times (1987). Results indicated that one in five respondents said that PWA's were 'offenders' who were getting their rightful due. The study also reported that 29% favored a tatoo for people who tested positive for the disease. A study by Mondragon, Kirkman-Liff, and Schneller (1991) found a strong positive association between hostility toward PWA's and; non-Hispanic, low income groups, those with less than high school education, and those living in rural compared with urban Arizona.

Social learning theory suggests that knowing a PWA will lead to more favorable attitudes and more realistic assessments of

personal risk. To date, however, very little research has investigated the effect of knowing someone with AIDS on people's attitudes to the disease and to PWA's in general. Temoshok, Sweet, and Zich (1987) reported that people in three cities with a different prevalence of AIDS had divergent attitudes, with the inhabitants of the city with the lowest prevalence having the least positive attitudes. Gerbert, Sumser, and Maguire (1991) found that people who reported knowing someone with AIDS or with HIV, had more realistic assessments of their own personal risk and showed less denial of the right to work for people who are HIV positive. However, Gerbert, Sumser, and Maguire (1991) found a virtual absence of a significant impact for the local prevalence of AIDS. This finding is supported with the findings on knowledge of AIDS reported by McCaig, Hardy, and Winn (1991) who noted that there were no significant differences in knowledge of AIDS between the areas of high, medium, and low prevalence of AIDS.

As with studies on college populations and health care professionals, a strong association has been noted between attitudes toward homosexuals and attitudes toward PWA's. An investigation by Dupras, Levy, Samson and Tessier (1989) found a strong association between these attitudes. They found that people with a negative attitude toward homosexuals had a tendency to demand exclusion of PWA's from mainstream

society, to condemn these people, and to discourage the diffusion of AIDS related information. In a similar study, Stipp and Kerr (1989) found that those who believe discrimination against homosexuals should be legal would go to much greater lengths to avoid PWA's.

A Study in Oregon

In 1990, Oregon participated in a national study, the Behavioral Risk Factor Survey (BRFS). Nine out of 90 questions specifically asked about HIV and AIDS. A total of 3308 Oregonians over the age of 18 years were interviewed and the following results were obtained. The majority had heard of HIV and most knew that condoms were effective in preventing HIV transmission. Three quarters knew that a person could not get AIDS from donating blood, and were aware that an HIV infected person could look and feel healthy. Although 70% said they were willing to work with a person with the AIDS virus, only 31% were willing to eat in a restaurant where the cook was infected with HIV.

HIV knowledge and attitudes were related, and respondents who knew that someone infected with the AIDS virus could look and feel healthy were 4.5 times more likely to answer that they would be willing to work with someone who was HIV-positive than those who did not. Finally, knowledge was greater among

younger people (under 65 yrs), and among those with higher levels of education and income. Likewise, younger people and those with higher levels of education and income were more likely to be willing to work with a person infected with HIV. There were no differences in either knowledge or attitudes between males and females.

As a national comparison, Oregonians ranked second in the percentage of adults knowing that donating blood was safe, third in having ever heard of HIV, and sixth in knowledge that a HIV infected person could look and feel healthy. However, Oregonians ranked 19th in willingness to work with a HIV-infected co-worker. In sum, it can be said that Oregonians were better informed than individuals in other states, but many people still expressed unwanted prejudices (Oregon State Health Division, 1992).

Summary

A negative attitude toward PWA's and fear of the disease is prevalent in American society (Blendon and Donelan, 1988). Some factors that are associated with a more negative attitude include: male gender, religious conservatism, Protestant affiliation, older age, low level of knowledge about the disease, low level of education, and a negative attitude toward homosexuals.

The research indicates that many people have negative attitudes toward homosexuals, and that the relationship between attitudes toward homosexuals and attitudes toward PWA's is very strong.

The relationship between knowledge and attitudes is complex (Witt, 1989). Although many studies have found a relationship, i.e. that more knowledge is associated with more positive attitudes toward AIDS and PWA's, other studies have found a weak relationship.

In general, knowledge about the routes of transmission of the AIDS virus is high, however, many misconceptions exist surrounding the risk of casual transmission, particularly with respect to saliva. The level of knowledge is not consistent across the population. General consensus has suggested that those who are older, African-American, Hispanic, and have fewer than 12 years education, are less knowledgeable about AIDS. Some evidence, suggests that males and females have different levels of knowledge, and that people living in areas that have a higher incidence of AIDS are more knowledgeable about the disease.

CHAPTER 3

METHODS

Research Design

The purpose of this study was to determine attitudes toward PWA's in rural Oregon, knowledge of community members about routes of transmission of the virus, and associated variables. More specifically, this study assessed attitudes toward PWA's, attitudes toward homosexuals, misperceptions about the risk of casual transmission of the AIDS virus; the interrelationship of these factors to each other and to religious beliefs, religiosity, age, sex, and educational level.

Selection of Subjects

Participants in the study were individuals living in the rural communities of Philomath and King's Valley in Western Oregon. At the time of the study a total of approximately 3312 people were living in both communities. Every 15th number was selected from the telephone book, resulting in a total selection of 208 numbers. Each number was dialled between 11 am and 5 pm on weekdays, between 5 pm and 8 pm on weekdays, and between 11 am and 8 pm on weekends. Equal

proportions of the interviewer's time was spent calling during each time period. The first person to answer the phone was asked to participate in the study provided they were over 18 years of age. In the event that a child had answered the telephone, the interviewer was instructed to ask to speak to an adult over the age of 18 if available.

Development of the Instrument

The questionnaire was developed from a combination of questions taken from instruments developed by Larsen, Long and Serra, 1990; Larsen, Reed, and Hoffman, 1980; Gray, 1988; Bouton, Gallaher, Garlinghouse, Leal, Rosenstein, and Young 1987; and the National Center for Health Statistics, 1987 (for a copy of the questionnaire see Appendix A).

The questionnaire was divided into the following sections:

1. An attitudinal section, including questions that were answered using a five-point Likert scale. The responses ranged from strongly agree to strongly disagree. Nine statements were worded in a positive direction, where a response of agree strongly was allotted a score of five, and disagree strongly a score of one. Eight statements were worded in a negative direction where a response of disagree

strongly was assigned a score of five. Eight statements related to attitudes toward PWA's. Six statements related to attitudes toward homosexuals, and seven questions related to attitudes to sexual promiscuity and perceived susceptibility to AIDS.

2. The second section contained eight knowledge questions requiring 'yes' or 'no' responses. A score of one was given for a correct response and a zero for an incorrect, or don't know response.

3. The third section of the questionnaire contained demographic questions related to: age, education, religious belief, religiosity, and whether the participant knew anyone with AIDS or who was HIV positive. The religiosity score was calculated from summing the scores from questions 5b and 5c (see Appendix A). The gender of the participant was recorded by the interviewer at the end of the interview. The participant was also given the opportunity to make any comments about AIDS or about the survey in general.

A pilot study involving twenty one participants was initially conducted during development of the instrument. A random sample of 30 numbers were taken from the telephone book, and a total of 21 pilot interviews were completed. Following the

pilot study the interviewer's script was amended to maximize clarity. Ambiguous statements and open-ended questions were removed from the instrument.

Reliability

The reliability of the attitudinal section of the instrument was determined by a test-retest pilot study using twenty subjects. Participants completed two interviews within two weeks. A Spearman's Rank Correlation Coefficient was conducted on the data. A correlation ($r = .86$) indicated a high level of test-retest reliability of the instrument.

Validity

Content validity was established by a panel of four health specialists at Oregon State University and in the local community. The panel included: Jon Berliner, Director of the Valley AIDS Information Network; Knud Larsen, developer of the Heterosexual Attitudes Towards homosexuals (HATH) scale; and Drs. Donatelle and Tricker, associate professors in the Department of Public Health. Comments from the panel were incorporated into the development of the instrument, which was then considered valid for the collection of data.

Collection of Data

The instrument (Appendix A), and the interviewer script (Appendix B) were used to conduct the survey. Numbers were selected randomly from the telephone book and each number was called 3 times during different time periods. Interviews were conducted between April 13th and May 9th 1992. Respondents were not identified by name and all data were treated as confidential. Interviews typically lasted five to 10 minutes. Eighty percent of the interviews were conducted by a hired telephone interviewer, who was supervised by the investigator. The investigator conducted the remaining 20% of the interviews in addition to the pilot and reliability studies. To avoid bias resulting from ordering of statements in the attitudinal section of the questionnaire, a rotation technique was used to delineate a different starting point on the questionnaire. One hundred and sixty three individuals were contacted, and 111 interviews were completed for a participation rate of 68%.

Data Preparation for Analysis

Summated scores were calculated for attitudes towards PWA's (Q1 a-h) and attitudes toward homosexuals (Q1 i-n). A maximum of 40 and a minimum of eight was possible for attitudes toward PWA's, with a high score indicating a positive

attitude. The range for attitudes toward homosexuality score was six to 30, with a high score indicating a positive attitude.

For the knowledge section (Q2 a-h), a score of one was given for a correct response. An incorrect, or 'don't know' response was given a zero. These scores were summated to give a total knowledge score, with a range from zero to eight.

For the religiosity scale, scores from questions 5b and 5c were summated, with a range from two to 10, a low score indicated a high level of religiosity and a high score indicated a low level.

Statistical Analysis of Data

The analysis of data was based upon responses of 111 participants in two rural communities in Western Oregon. A combination of Pearson's Product Moment Correlation Coefficient, Spearman's Rank Correlation Coefficient, and Oneway ANOVA's were conducted on the data to test the hypotheses. The correlation techniques were used to test for association between two variables. Pearson's Product Moment Correlation Coefficient was used where both variables were on an interval scale. Spearman's Rank Correlation Coefficient was used for Hypothesis 4., where one of the variables used

was on an ordinal scale. One way Analysis of Varaince was used with those hypotheses testing for a difference where the dependent variable used an interval scale.

CHAPTER 4

RESULTS

Introduction

The purpose of this study was to examine attitudes toward PWA's, knowledge of routes of transmission of the virus, and associated variables of community members in two selected rural areas in Western Oregon. More specifically, this study assessed attitudes toward PWA's, attitudes toward homosexuals, misperceptions of the risk of casual transmission of the AIDS virus, and how these factors relate to each other and to demographic variables, such as religious beliefs, religiosity, age, sex, and educational level.

The results of this study are presented as follows: sample demographics, descriptive statistics, and inferential statistics.

Computer Analysis of Data

STATGRAPHICS Computer Software 5.0 (1991) package was used to analyze the data for the study.

Sample Demographics

Male subjects comprised 42% of the sample, and females comprised 58% (Table 1). Ten percent of the sample were between the ages of 18 and 25 years, 23% between 26 and 35 years, 31% between 36 and 45, 17% between 46 and 55, 10% between 56 and 65, and 10% over 66 years of age. Ninety three percent of the participants reported having an education of at least 12 years, i.e. at least high school graduation, and 37% reported being college graduates.

Table 1 : Demographics of Sample

n = 111

GENDER

| | |
|--------|----------|
| MALE | 47 (42%) |
| FEMALE | 64 (58%) |

AGE

| | |
|-----------|----------|
| 18-25 YRS | 11 (10%) |
| 26-35 YRS | 25 (23%) |
| 36-45 YRS | 34 (31%) |
| 46-55 YRS | 19 (17%) |
| 56-65 YRS | 11 (10%) |
| 66-75 YRS | 7 (6%) |
| 76-85 YRS | 4 (4%) |

EDUCATION

| | |
|-----------|----------|
| < 8 YRS | 1 (0%) |
| 9-11 YRS | 7 (6%) |
| 12 YRS | 32 (29%) |
| 13-15 YRS | 30 (27%) |
| 16 YRS | 24 (22%) |
| >17 YRS | 17 (15%) |

More than half (58%) of the participants reported having a religious belief (Table 2). These were broken down by the particular religious denominations, with 45% of those who reported a religious belief being Protestant, 17% Catholic, 27% unspecified Christian, eight percent Mormon, and two percent other religions. Fifty five percent of those with a religious belief considered their beliefs to be very strong, 30% fairly strong, eight percent, not too strong, and eight percent, not at all strong. Three percent didn't know or couldn't indicate the strength of their beliefs. Fifty one percent of those with a religious belief reported attending religious services at least once a week, 25% a couple of times a month, and 26% reported attending services a couple of times a year or less.

Table 2 : Religious Characteristics of Sample

n = 111

RELIGIOUS BELIEF

| | |
|-----|----------|
| YES | 64 (58%) |
| NO | 47 (42%) |

RELIGIOUS AFFILIATION

| | |
|-----------------------|----------|
| CATHOLIC | 11 (17%) |
| PROTESTANT | 29 (45%) |
| UNSPECIFIED CHRISTIAN | 17 (27%) |
| MORMON | 5 (8%) |
| OTHER | 2 (3%) |

STRENGTH OF RELIGIOUS BELIEFS

| | |
|-------------------|----------|
| VERY STRONG | 35 (55%) |
| FAIRLY STRONG | 19 (30%) |
| NOT TOO STRONG | 5 (8%) |
| NOT AT ALL STRONG | 5 (8%) |
| D/K | 2 (3%) |

ATTENDANCE AT RELIGIOUS SERVICES

| | |
|-------------------------|----------|
| MORE THAN ONCE A WEEK | 11 (17%) |
| ONCE A WEEK | 22 (34%) |
| COUPLE OF TIMES A MONTH | 16 (25%) |
| COUPLE OF TIMES A YEAR | 4 (6%) |
| HARDLY EVER | 6 (9%) |
| NEVER | 6 (9%) |
| D/K | 1 (2%) |

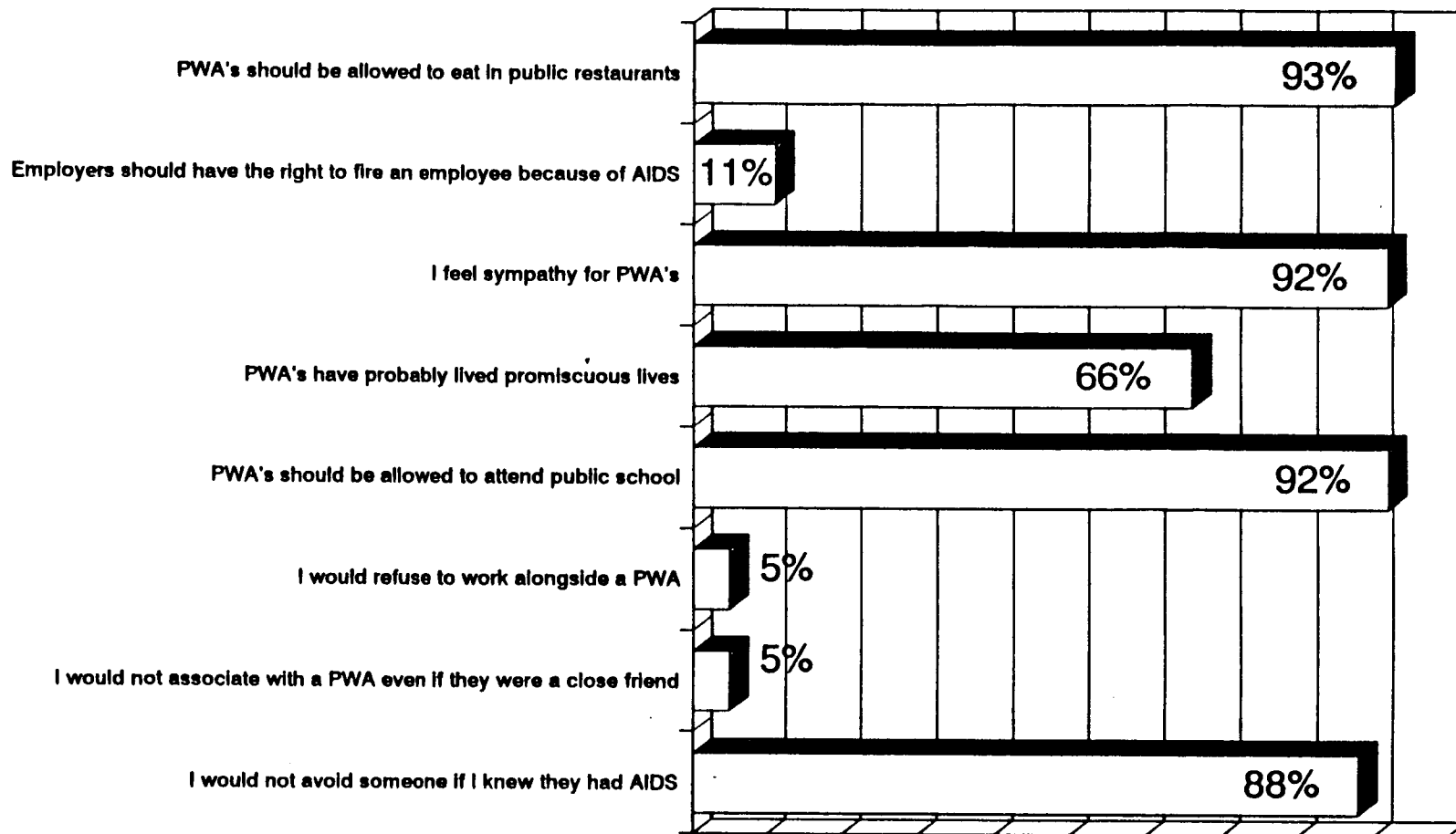
Descriptive Statistics

Attitudes Toward PWA's

Descriptive statistics related to attitudes toward PWA's are presented in Table 3. The mean, median, and modal scores were 32. The maximum score for a positive attitude was 40. The range of scores was 25 and the standard deviation was 4.1. Responses to individual statements are illustrated in Figure 3.

Table 3: Attitudes Toward PWA'S

| | |
|--------------------|-------|
| Mean Score | = 32 |
| Median | = 32 |
| Mode | = 32 |
| Standard Deviation | = 4.1 |
| Minimum | = 15 |
| Maximum | = 40 |
| Range | = 25 |



Percentage Agreement With Statements.

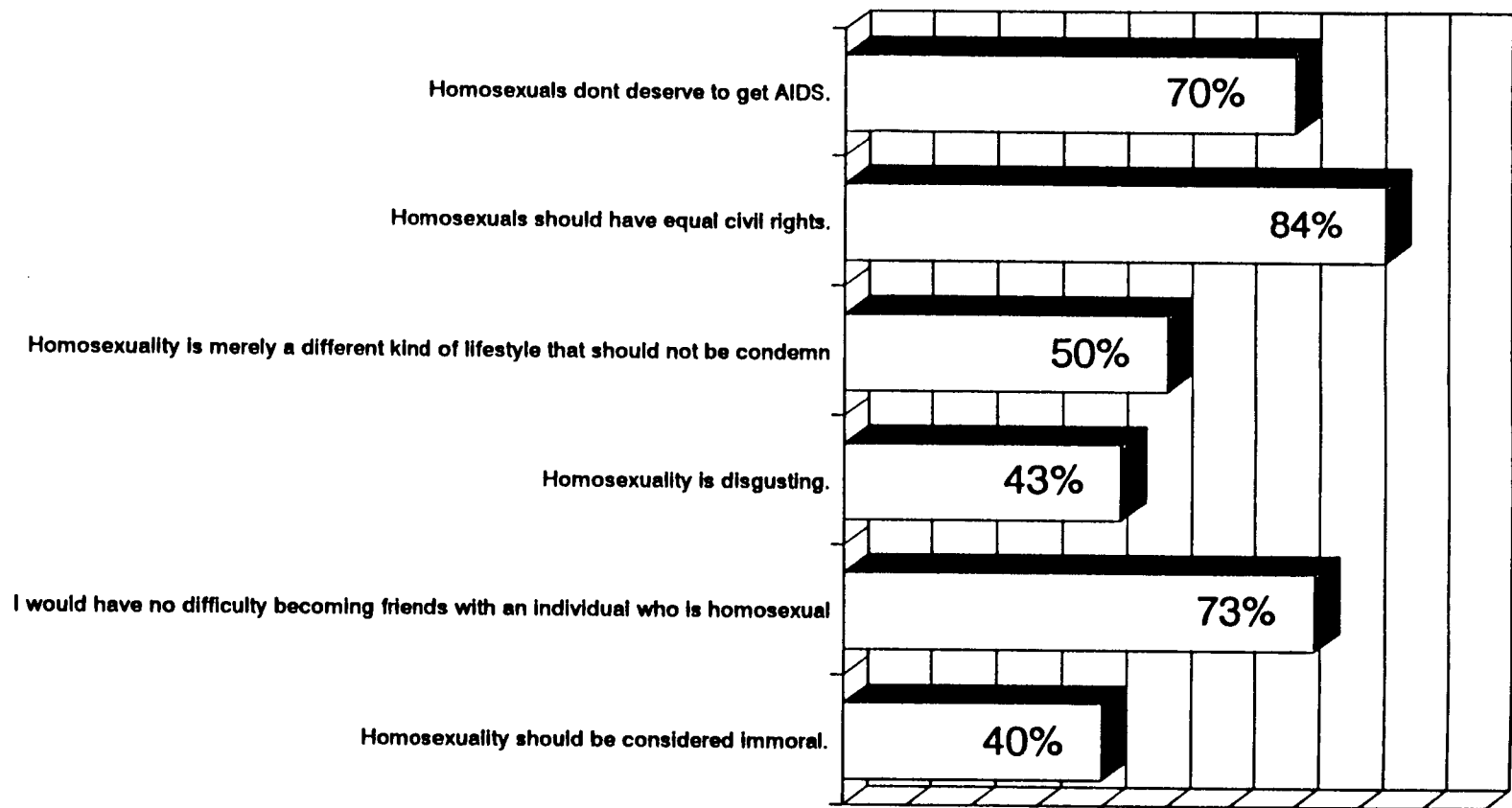
Figure 3: Responses to Attitude Statements Regarding PWA's.

Attitudes Toward Homosexuals

The mean, median, and modal scores for attitudes towards homosexuals were 20, 21, and 24 respectively (Table 4). The maximum score indicating a positive attitude was 30 and the minimum indicating a negative attitude was eight. The range of scores was 22 and the standard deviation was 5.5. Responses to individual statements are illustrated in Figure 4.

Table 4: Attitudes Toward Homosexuals

| | |
|--------------------|-------|
| Mean | = 20 |
| Median | = 21 |
| Mode | = 24 |
| Standard Deviation | = 5.5 |
| Minimum | = 8 |
| Maximum | = 30 |
| Range | = 22 |



Percentage Agreement With Statement.

Figure 4: Responses to Attitude Statements Regarding Homosexuals.

Knowledge

From a total of eight knowledge questions, the mean, median, and modal scores were, six, seven, and seven respectively (Table 5). The lowest knowledge score was one and the highest, eight. Twenty five percent of participants were correct on each item, and 32% answered seven of the eight correctly. Figure 5. gives an illustration of the percentage of correct responses for each knowledge question.

Table 5: Total Knowledge Scores

| | |
|--------------------|-------|
| Mean | = 6 |
| Median | = 7 |
| Mode | = 7 |
| Standard Deviation | = 1.7 |
| Minimum | = 1 |
| Maximum | = 8 |
| Range | = 7 |

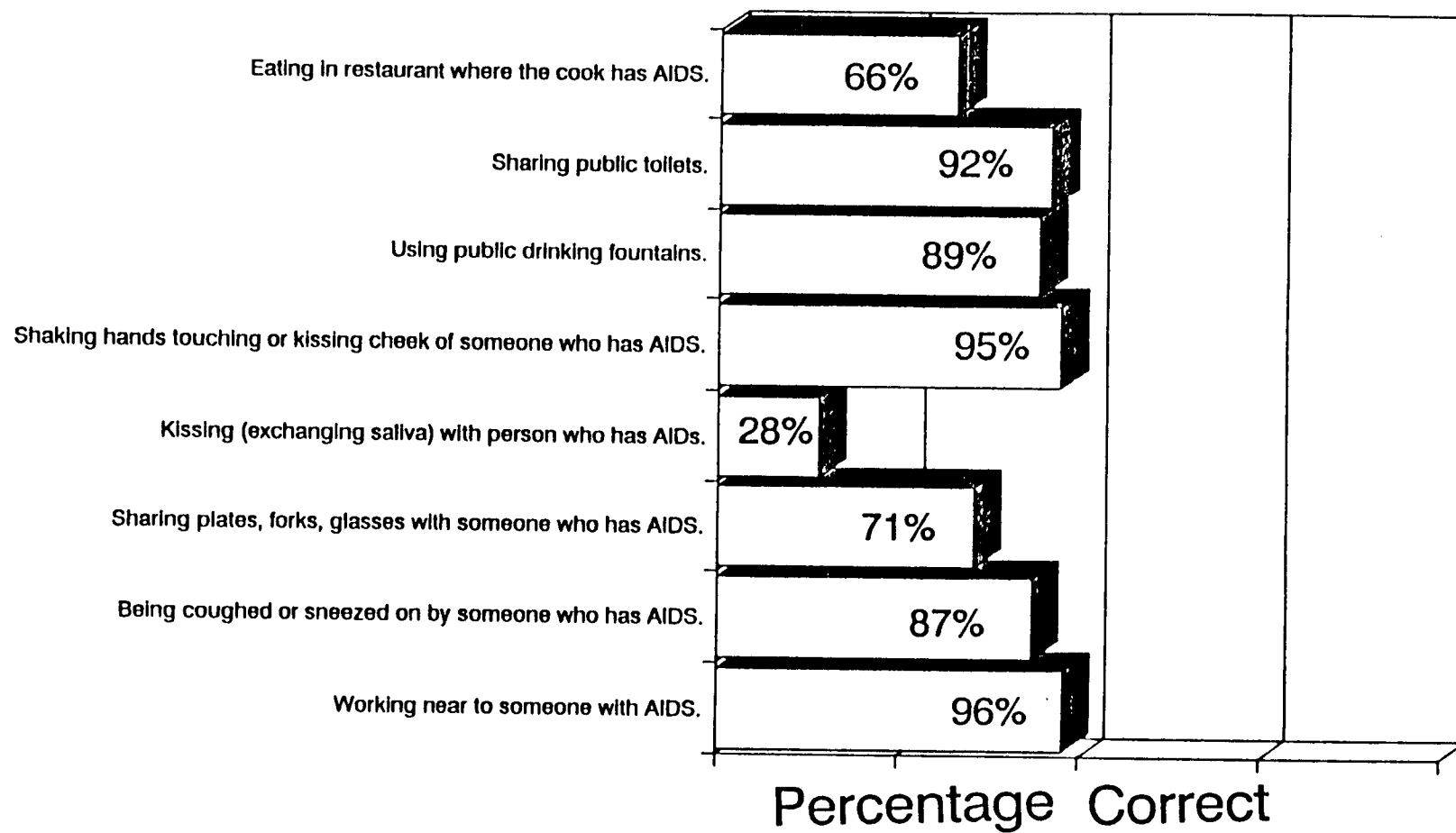


Figure 5: Percentage of Correct Responses to Knowledge Questions.

Perceived Susceptibility and Relevance of the AIDS Issue

Twenty three percent of the sample had the opinion that AIDS was not a problem in their community. Only five percent agreed that AIDS did not concern them. Seventy seven percent agreed with the statement ' I'm not likely to get AIDS', while 40% agreed with the statement 'I am afraid of getting AIDS'. A quarter of the sample reported knowing someone who was either HIV positive or who had AIDS (see figure 6).

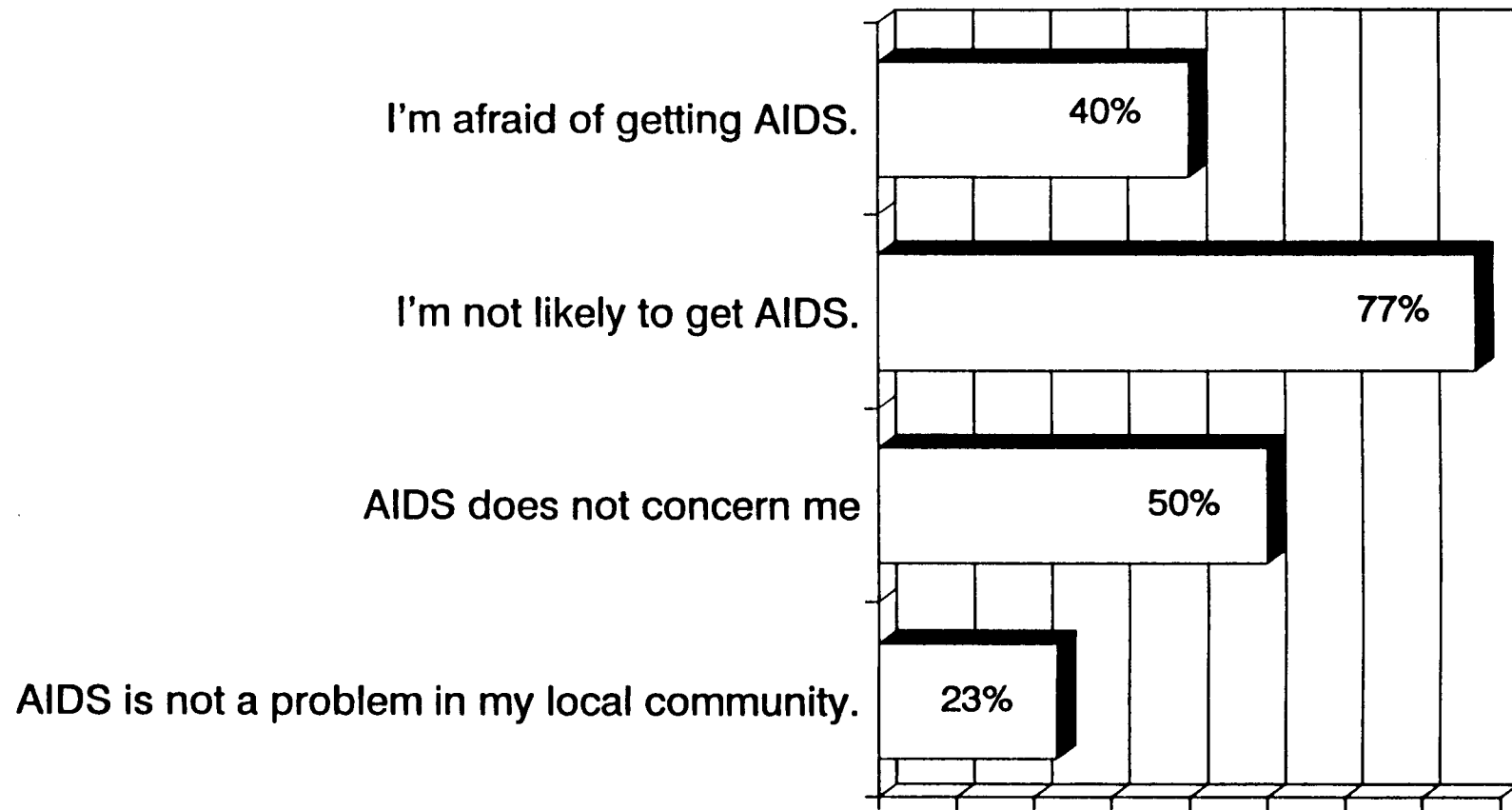
Inferential Statistics

Tests of Hypotheses

This section describes analyses conducted to test the hypotheses. Each hypothesis is restated and the results of each analysis follows.

Tests of Association

The following hypotheses were tested using correlation analyses. Pearson's Product Moment Correlation Coefficient was used for those hypotheses which were testing interval data. Spearman's Rank Correlation Coefficient was used for



Percentage Agreement With Statement.

Figure 6: Responses to Perceived Susceptibility Statements.

Hypothesis 4., where ordinal data was used. See Table 6 for a summary of all correlation coefficients.

H0 1. There will be no association between attitudes toward PWA's and attitudes toward homosexuals.

Pearson's Product Moment correlation Coefficient was conducted comparing the two sets of summated attitudinal scores. The H0 was rejected ($r = .65$; $P \leq .001$). People who had a positive attitude toward PWA's also tended to have a positive attitude toward homosexuals.

H0 2. There will be no association between total knowledge score and attitudes towards PWA's.

Pearson's Product Moment Correlation Coefficient was conducted on total knowledge scores and summated attitude scores towards PWA's. The H0 was rejected ($r = .42$; $P \leq .001$). People who knew more about AIDS and had less misperceptions about the risk of casual contact were more likely to have positive attitudes toward PWA's.

H0 3. There will be no association between levels of religiosity and attitudes towards PWA's.

Pearson's Product Moment Correlation Coefficient was conducted on religiosity scores with attitude toward PWA scores. The H_0 was not rejected ($r = -.07$; $P \leq .460$). Among people with a religious preference, the strength of their beliefs and the frequency with which they attended religious services were not related to their attitudes toward PWA's.

H0 4. There will be no association between total knowledge score and level of education.

Spearman's Rank Correlation Coefficient was conducted on the data. The H_0 was rejected ($r = .23$; $P \leq .01$). People with a higher level of education tended to be more informed about AIDS.

H0 5. There will be no association between age and attitudes toward PWA's.

Pearson's Product Moment Correlation Coefficient was conducted, comparing age with attitude scores. The H_0 was not rejected ($r = -.15$; $P \leq .108$). This indicated that the age of people in this study was not significantly related to their attitudes toward PWA's.

Table 6: Correlations of Variables Associated with Attitudes Toward PWA's

| | PWA'S | Ho | Kno | Edu | Age | Rel |
|---------------|-------|------|------|------|------|------|
| PWA's | 1.00 | .65 | .42 | -.06 | -.15 | -.07 |
| Homosexuality | .65 | 1.00 | .39 | -.19 | -.07 | -.24 |
| Knowledge | .42 | .39 | 1.00 | .23 | * | * |
| Education | -.06 | -.19 | .23 | 1.00 | * | * |
| Age | -.15 | -.07 | * | * | 1.00 | * |
| Religiosity | -.07 | -.24 | * | * | * | 1.00 |

Tests of Difference

The following hypotheses were tested using oneway Analysis of Variance:

H0 6. Males and females will not differ in their attitudes toward PWA's.

A Oneway Analysis of Variance was conducted on the attitude scores of the male and female participants. The H0 was not rejected ($F=.015$; $P \leq .905$; df 1/109). Males and females did not differ significantly in their attitudes towards PWA's.

Table 7: Analysis of Variance on Sex Differences in Attitudes Toward PWA's

| Source of Variation | SOS | DF | MS | F-ratio | Sig. |
|---------------------|-----------|-----|-----------|---------|-------|
| Between groups | .2523 | 1 | .252279 | .015 | .9056 |
| Within groups | 1893.2252 | 109 | 17.369039 | | |
| Total | 1893.4775 | 110 | | | |

H0 7. There will be no differences between males and females in attitudes toward homosexuals.

A Oneway Analysis of Variance (ANOVA) was conducted on the attitude scores of the male and female participants. The H0 was not rejected ($F = .554$; $P < .466$; $df\ 1/109$). Males and females did not differ significantly in their attitudes toward homosexuals.

Table 8: Analysis of Variance on Sex Differences in Attitudes Toward Homosexuals

| Source of Variation | SOS | DF | MS | F-ratio | Sig. |
|---------------------|-----------|-----|-----------|---------|-------|
| Between groups | 16.8610 | 1 | 16.861031 | .554 | .4664 |
| Within groups | 3319.4633 | 109 | 30.453792 | | |
| Total | 3336.3243 | 110 | | | |

H0 8. Those with a religious belief will not have a more negative attitude toward PWA's than those without.

A Oneway Analysis of Variance was conducted on the data. The H0 was rejected ($F = 4.308$; $P \leq .0403$; $df\ 1/109$). People who considered themselves religious were more negative in their attitudes towards PWA's than people who considered themselves non-religious.

Table 9: Analysis of Variance on Differences in Attitudes Toward PWA's According to Religious Belief

| Source of Variation | SOS | DF | MS | F-ratio | Sig. |
|---------------------|-----------|-----|-----------|---------|-------|
| Between groups | 71.9984 | 1 | 71.998422 | 4.308 | .0403 |
| Within groups | 1821.4791 | 109 | 16.710817 | | |
| Total | 1893.4775 | 110 | | | |

H0 9. Those with a religious belief will not have a more negative attitude toward homosexuals than those without.

A Oneway Analysis of Variance was conducted on the data. The H0 was rejected ($F = 9.476$; $P \leq .00001$; $df\ 5/105$). Religious

people were more negative in their attitudes toward homosexuals than non religious people.

Table 10: Analysis of Variance on Differences in Attitudes Toward Homosexuals According to Religious Belief

| Source of Variation | SOS | DF | MS | F-ratio | Sig. |
|---------------------|-----------|-----|-----------|---------|--------|
| Between groups | 542.4507 | 1 | 542.45065 | 21.163 | .00001 |
| Within groups | 2793.8737 | 109 | 25.63187 | | |
| Total | 3336.3243 | 110 | | | |

Discussion

As the United States enters the second decade of the AIDS epidemic, attitudes towards the disease and the people living with it will play an increasingly important role in shaping societal responses to AIDS and PWA's. The prevalence of AIDS in rural America has increased significantly (National Commission on AIDS, 1989). Rounds (1988) suggested that health and social services are not prepared for this increase in numbers because of a lack of tolerance to diversity and a lower level of knowledge of AIDS in rural areas.

The results from this study indicated that the adult

population from two communities in rural Western Oregon take the AIDS issue very seriously. Two general feelings expressed during the interview were sadness, that a disease such as AIDS exists, and hope for a cure in the near future. In terms of people taking the issue seriously, the majority agreed that AIDS was a problem in their local community, evidenced by the fact that 95% felt that AIDS was something that concerned them.

Attitudes toward PWA's were mixed, but were generally more positive than expected. Previous studies indicated that rural populations were more negative in their opinions (Temoshok, Sweet, and Zich, 1987; Mondragon, Kirkman-Liff, and Schneller, 1991). Possible explanations for this finding might relate the population not being representative of a 'typical' rural area. The general level of education was high (37% college graduates), and the timing of this study occurred soon after the popular public figure Magic Johnson was diagnosed with HIV. Furthermore, a quarter of the population sampled in Kings Valley and Philomath reported that they knew someone who was HIV positive or had AIDS. Studies have shown that an association with a person with AIDS leads to more positive attitudes and less fear (Gerbert, Sumser, and Maguire, 1991).

A closer study of individual attitude statements provides a

more detailed profile. For example, 87% of those sampled would not refuse to work alongside a person with AIDS, this compares with 70% of respondents in the Oregon study who said they would work alongside a PWA (Oregon State Health Division, 1992). The more positive findings of this study may result from wording differences between the studies, or the fact that the Oregon study was undertaken in 1990, and a shift in attitudes may have taken place. This particular attitudinal statement caused a dilemma for a significant minority of individuals who thought that whether they would work alongside a PWA depended on the type of job; for example, some felt that if the job were in a medical or food handling setting then they would feel less comfortable about working with a PWA.

Respondents' attitudes to working alongside a PWA were related to whether they thought that employers had the right to fire an employee because that person had AIDS. In the present study, 73% thought that employers did not have the right. This is comparable to 85% of the general population in Vermont who believed this (Kappel, Vogt, Broziceric, and Kutzom, 1989). A significant minority in the present study thought that their response depended on the type of job, and that if the PWA was working in a food handling or a medical setting then an employer would have the right to fire him or her. This feeling can be related to the fact that 34% thought

there was a possibility that the AIDS virus could be contracted from eating in a restaurant where the cook had AIDS.

In accordance with the related literature the results of this study also noted that prejudices and negative attitudes toward PWA's were common. Research indicates that these negative attitudes can be attributed to negative attitudes toward homosexuals, and misperceptions about the ease of transmission of the virus giving rise to a fear of casual contact.

A significant minority of the population reported that whether they felt sympathy for a PWA depended on how the virus had been contracted, i.e. if the virus was contracted through homosexual contact it was felt that the individual was deserving of less sympathy than if the transmission had occurred by way of a blood transfusion. People who expressed positive attitudes toward PWA's tended to have more positive attitudes toward homosexuals. More importantly, people who had negative attitudes toward homosexuals tended to have negative attitudes toward PWA's. This important finding has been reported in many previous investigations (Ambrosio and Sheehan, 1991; Royse and Birge, 1987; Dupras, Levy, and Tessier, 1989). There is evidence to suggest that the general public strongly associates homosexuality with AIDS. Some

researchers have pointed to a reciprocal influence effect, whereby PWA's may be viewed more negatively because they are assumed to be homosexual, and homosexuals may be stigmatized further by negative attitudes and fears about AIDS (Herek, 1984).

Results from this study suggest that attitudes toward homosexuals are mixed, but that there is a lack of tolerance amongst about 50% of the population. A negative attitude toward homosexuals has been consistently reported in the literature (Goodwin and Roscoe, 1988). Less than half of those sampled disagreed with the statement 'homosexuality should be considered immoral'. Only 50% agreed that homosexuality is merely a different kind of lifestyle that should not be condemned. This lack of tolerance amongst some members of the community towards a homosexual lifestyle may be a result of a general lack of tolerance for diversity. However, 84% agreed that homosexuals should have equal civil rights, although some made the point of stating that homosexuals should not have 'special' rights. Seventy three percent reported that they would have no difficulty becoming friends with an individual who was homosexual. The latter result is interesting given that there must be some individuals who consider homosexuality to be a lifestyle that should be condemned and something which is immoral but who would have no difficulty in becoming friends with an

individual who was homosexual. A significant minority of respondents commented that in their opinion homosexuals deserved to get AIDS due to their lifestyle. Comments during the interviews also referred to a feeling of confusion felt by those with strong religious beliefs regarding their attitudes toward homosexuals. There was a feeling of conflict between the religious teachings and personal attitudes.

Following previous investigations it was perhaps logical to assume that attitudes toward homosexuals in this study would be negative. Evidence suggests that rural populations are less tolerant of alternative lifestyles and behaviors (Rounds, 1988). Furthermore, at the time of data collection a group known as the Oregon Citizen's Alliance (OCA) were very active in the area. Negative literature was distributed, linking homosexuality to pedophilia and sado-masochism in order to gain support for Ballot Measure #2108. The bill was designed to stop public expenditure on any activity that could be described as promoting homosexuality. The OCA are presently supporting a statewide initiative, Measure 9. If approved by voters November 3, Measure 9 would amend the Oregon Constitution to declare homosexuality 'abnormal, wrong, unnatural, and perverse.'

There were no differences between males and females in attitudes toward PWA's or homosexuals. It was anticipated

that males would have more negative attitude toward both groups, based on previous studies. However, the evidence supporting a sex differences has not been reported consistently in the literature (McDevitt, Sheehan, Lennon, and Ambrosio, 1989); furthermore, the 1992 Oregon study found no sex difference in attitudes toward AIDS.

There were no differences between young and elderly people in their attitudes toward PWA's. It was expected from previous studies that older people would have more negative attitudes (Oregon State Health Sciences Division, 1992). However, in the statewide study, people were divided on the basis of being over or under 65 years, in contrast to the present study where age was used as a continuous variable.

People who belonged to a church or had a religious belief, generally had more negative attitudes toward PWA's and homosexuals. Further examination of the data revealed that people who were most negative in their attitude toward PWA's described themselves as Christian without specifying a particular denomination. A flaw in the questionnaire whereby respondents who described themselves as Christians were not probed for further details on their particular denomination causes a problem in the interpretation of this data. These results are consistent with those from previous studies which reported that those with a religious belief were more

negative in their attitudes toward PWA's and homosexuals, and that of the denominations, Catholics had the most positive attitudes (Greeley, 1991; Bouton et al, 1989). Although to date no studies have addressed this issue, the investigator was interested in testing the hypothesis that of the people with a religious belief, those with a higher religiosity score, i.e. people who had strong beliefs and frequently attended religious services, would have more negative attitudes toward PWA's. However, the analysis for the groups as a whole indicated no association between these factors.

The knowledge of the people interviewed was generally good about the risk of transmission of the AIDS virus through casual contact. The literature would suggest that the misperceptions about casual transmission of the virus would be higher (Kappel, Vogt, Broziceric, and Kutzo, 1989; Timmerman, McDonough, and Harmeson, 1991). The individual items on the knowledge test elicited quite different responses. For example, the majority of the sample knew that the virus could not be contracted through shaking hands, touching, or kissing the cheek of someone with AIDS. However, only 28% were correct in their response to 'kissing (with exchanging saliva) a person with AIDS'. Only two thirds were correct in the opinion that the virus could not be contracted through eating in a restaurant where the cook has AIDS. However, national figures from the NHIS found less than half

of those sampled to be correct on this item (McCaig, Hardy, and Winn, 1991). Generally the results are consistent with those from previous studies in that it was apparent that misperceptions around transmission of the AIDS virus through casual routes tended to be centered around saliva as a transmission fluid (Kappel, Vogt, Broziceric, and Kutzo, 1989).

The results indicated that those with a higher level of education had a greater knowledge of AIDS, a finding that is common in the literature. Furthermore, those with a higher level of knowledge were more likely to have a positive attitude toward PWA's. These results have been reported consistently in the literature among different population groups (Mondragon, Kirkman-Liff, and Schneller, 1991).

Overall, the findings from the present study indicated that those with a negative attitude toward PWA's were likely to have the following associated characteristics: a negative attitude toward homosexuals, a religious belief, a low level of knowledge of the disease, and a low level of education. However, findings not consistent with previous research are the absence of a difference between males and females, and a lack of an association between age of respondent and attitudes toward PWA's.

In order to reduce prejudice toward PWA's in rural Oregon educational strategies need to address negative homosexual stereotypes and reduce the association in the minds of the public between homosexuals and AIDS. Programs should be designed to address the public's misperceptions regarding the transmissibility of the AIDS virus through casual routes, particularly through saliva exchange. Finally, a series of consultations with religious leaders may result in greater tolerance of religious groups toward PWA's and homosexuals.

CHAPTER 5

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to assess attitudes toward PWA's and associated factors in two rural communities in Western Oregon. A random sample was taken from the telephone book, one hundred and sixty three individuals were contacted, and 111 interviews were completed, giving a participation rate of 68%. Forty seven males and 64 females of all ages between 18 and 80 were interviewed between April 12th and May 9th, 1992. Overall, the results indicated that the community members were sympathetic to PWA's and did not support coercive policy measures such as PWA's not being permitted to eat in public restaurants. Pearson's Product Moment Correlation Coefficient and Spearman's Rank Correlation Coefficients were used to determine associations between the various variables giving the following results: people with negative attitudes toward homosexuals also tended to have negative attitudes toward PWA's. Furthermore, people with a high level of knowledge the AIDS virus and less misperceptions about risk of casual transmission were more positive in their attitudes toward PWA's.

Religious people held more negative attitudes toward PWA's and homosexuals than non religious individuals. Analysis using a Oneway Analysis of Variance indicated that there were no attitudinal differences between males and females or between different age groups.

Conclusions

The following conclusions were drawn from analysis of the results in this study:

1. Attitudes toward PWA's were found to be generally positive and compared well to previous studies conducted on various populations and at different time points.
2. Participants generally had a high level of knowledge about the AIDS virus although there were misperceptions about the exchange of saliva as a route of transmission. Those with a higher level of knowledge of the disease had more positive attitudes toward PWA's, and those with more years of education were more knowledgeable.
3. Attitudes toward homosexuals in the community were generally more negative than were attitudes toward PWA's. People with a negative attitude toward homosexuals were likely to also have a negative attitude toward PWA's.

4. There were no differences between males and females in attitudes toward PWA's or homosexuals. There were also no differences in attitudes toward PWA's according to age of participant.
5. Those who expressed a religious belief were found to have more negative attitudes toward PWA's and homosexuals.
6. People with a negative attitude toward PWA's were more likely to have a negative attitude toward homosexuals; a religious belief; a low level of knowledge of the disease; and less education than people with a positive attitude towards PWA's.

Recommendations

As a result of this study, the following were recommended for further research, education, and community action:

1. Greater emphasis on educating the public more thoroughly about transmission routes for the AIDS virus.
2. Consultation with religious leaders to promote greater tolerance toward PWA's and homosexuals.

3. Improved educational strategies designed to reduce negative attitudes toward homosexuals.
4. Modification of attitudes about AIDS, involving campaigns clearly indicating that homosexuality and AIDS are different phenomena.
5. Establishment of programs that encourage PWA's to resolve anti-AIDS feeling by addressing people from different social groups.
6. Further research investigating rural populations in other areas in Oregon and in other states to assess attitudes toward PWA's and knowledge of AIDS.
7. Further research to determine the perceptions of the population of the OCA.

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APPENDICES

APPENDIX A
Questionnaire

ID # _____

Q1. I'm going to read a list of statements that have been made about AIDS. There are no right or wrong answers. We are interested in the extent to which you agree or disagree with the statements. First impressions are usually best. As I read each statement please tell me if you agree strongly, agree, have no opinion, disagree or disagree strongly with each of the following statements.

| | <u>AS</u> | <u>A</u> | <u>NO</u> | <u>D</u> | <u>DS</u> |
|---|-----------|----------|-----------|----------|-----------|
| a. I would not avoid someone if I knew they had AIDS.... | 5 | 4 | 3 | 2 | 1 |
| b. I would not associate with a person who had AIDS, even if they were a close friend..... | 1 | 2 | 3 | 4 | 5 |
| c. I would refuse to work alongside a person with AIDS... | 1 | 2 | 3 | 4 | 5 |
| d. People with AIDS should be allowed to attend public school..... | 5 | 4 | 3 | 2 | 1 |
| e. People with AIDS have probably lived promiscuous lives..... | 1 | 2 | 3 | 4 | 5 |
| f. I feel sympathy for someone with AIDS..... | 5 | 4 | 3 | 2 | 1 |
| g. Employers should have the right to fire an employee because that person has AIDS..... | 1 | 2 | 3 | 4 | 5 |
| h. People with AIDS should be allowed to eat in public restaurants..... | 5 | 4 | 3 | 2 | 1 |
| i. Homosexuality should be considered immoral..... | 1 | 2 | 3 | 4 | 5 |
| j. I would have no difficulty becoming friends with an individual who is homosexual..... | 5 | 4 | 3 | 2 | 1 |
| k. Homosexuality is disgusting..... | 1 | 2 | 3 | 4 | 5 |
| l. Homosexuality is merely a different kind of lifestyle that should not be condemned..... | 5 | 4 | 3 | 2 | 1 |

| | <u>AS</u> | <u>A</u> | <u>NO</u> | <u>D</u> | <u>DS</u> |
|---|-----------|----------|-----------|----------|-----------|
| m. Homosexuals should have equal civil rights..... | 5 | 4 | 3 | 2 | 1 |
| n. Homosexuals, don't deserve to get AIDS..... | 5 | 4 | 3 | 2 | 1 |
| o. Having multiple sex partners is disgusting..... | 1 | 2 | 3 | 4 | 5 |
| p. Sexual promiscuity is a sin..... | 1 | 2 | 3 | 4 | 5 |
| q. No-one deserves to get AIDS | 5 | 4 | 3 | 2 | 1 |
| r. AIDS is not a problem in my local community..... | 1 | 2 | 3 | 4 | 5 |
| s. AIDS does not concern me..... | 1 | 2 | 3 | 4 | 5 |
| t. I'm not likely to get AIDS..... | 1 | 2 | 3 | 4 | 5 |
| u. I am afraid of getting AIDS..... | 5 | 4 | 3 | 2 | 1 |

2. I will now read a list of situations and as I read each one I'd like you to tell me whether or not you think an individual can contract the AIDS virus in that way: The first one is

| | <u>Y</u> | <u>N</u> | <u>D/K</u> |
|--|----------|----------|------------|
| a. Working near someone with AIDS..... | 0 | 1 | 0 |
| b. Being coughed or sneezed on by someone with AIDS...0 | | 1 | 0 |
| c. Sharing plates, forks, or glasses with someone who has the AIDS virus..... | 0 | 1 | 0 |
| d. Kissing (with exchanging saliva) a person who has the AIDS virus..... | 0 | 1 | 0 |
| e. Shaking hands, touching, or kissing the cheek of someone who has the AIDS virus..... | 0 | 1 | 0 |
| f. Using public drinking fountains..... | 0 | 1 | 0 |

- g. Sharing public toilets.....0 1 0
- h. Eating in a restaurant where the cook has AIDS.....0 1 0

I would now like to ask a few questions about yourself for statistical purposes.

3. What is your age? _____

Refusal9

4. What is the highest grade(or year) of school you have completed?(**DO NOT READ UNLESS NECESSARY**)

Less than High School (8 years or less).....1
 Some High School (9-11 years).....2
 High School graduate(12 years).....3
 Some College/technical school(13-15 years).....4
 College graduate (16 years).....5
 Graduate school (17 yrs +).....6
 D/K/N/A.....7

5. Do you have a religious preference or not?

DK/NA.....1
 No.....2
 Yes.....3

5a.What is your preference?

Catholic.....1
 Protestant.....2
 Other Christian... 3
 Other _____ 4

5b. Would you say you attend religious services?.....(**READ**)

More than once a week.....1

Once a week.....2
 A couple of times a month.....3
 A couple of times a year.....4
 Hardly ever.....5
 Never.....6
 D/K/N/A.....7

5c. Would you say your religious beliefs are?...(READ)

Very strong.....1
 Fairly Strong.....2
 Not too strong.....3
 Not at all strong.....4
 D/K/N/A.....5

6. Do you know any people who have
 AIDS or who are HIV positive?

DK/NA1
 No.....2
 Yes.....3

7. Do you have any further comments you would like to
 make about AIDS, people with AIDS, and those at high risk
 for contracting the virus, or anything else in relation to
 this survey? (PROBE)

THANK-YOU VERY MUCH

(BY OBSERVATION)

9. Gender.....Male1
 Female.....2

APPENDIX BInterviewer Script

Hello my name is and I'm calling from Oregon State University. We are doing a study in the local area about people's opinions related to AIDS issues. For this survey we need to speak to an individual who is 18 years of age or older, would that be you?

Would you be able to spare a few minutes to answer some questions?

The survey is anonymous and all of the information given will be kept confidential. You are free not to answer any question and to terminate the interview at any time, OK?